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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/538,731	03/30/2000	Kenneth J. Myers	BEU/FORESITE4	8860

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EXAMINER

WINSTEDT, JENNIFER E

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/538,731

Applicant(s)

MYERS, KENNETH J.

Examiner

Jennifer E Winstedt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 29 November 2000 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,8,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 11/29/00 have been approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 18 are rejected under 35 U.S.C. 102(a) as being anticipated by Mosely et al. (U.S. Patent 5,993,004).

Regarding claim 1, Moseley et al. discloses a stereoscopic imaging system comprising a display arranged to display separate images, one representing a right eye portion of a stereoscopic image, and the other representing a left eye portion of the stereoscopic image (41, Figure 10 and column 5, lines 22-26); polarizers arranged to oppositely polarize the left and right eye images (42, Figure 10 and column 8, lines 15-38); an image interlacing arrangement for combining the oppositely polarized left and right eye images (56, Figure 10); and polarizing filters for enabling respective right and left eyes of a person to view the corresponding oppositely polarized and interlaced left and right images (40, Figure 10).

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The method of claim 18 is inherent in the apparatus described above.

Claims 13-17 are rejected under 35 U.S.C. 102(a) as being anticipated by Chikazawa (U.S. Patent 5,900,972).

Regarding claims 13-17, Chikazawa ('972) discloses a microprism sheet comprising a plurality of parallel facets defined by grooves having intersecting sides that form a v-shape, wherein the sheet is non-planar (43, Figure 16), wherein a size of the facets increases towards the edges of the sheet (43, Figure 16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6, 8, 12, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moseley et al. in view of Klinkum (U.S. Patent 2,313,947).

Regarding claim 2, Moseley et al. discloses that the image interlacing arrangement, which is a microlens array (56, Figure 10), is arranged to refract light from first and second image sources so that the light from the first and second image sources exits the image interlacing arrangement in parallel to form an interlaced image (see Figure 10). Moseley et al. does not disclose the image interlacing arrangement including a microprism sheet including a substrate and a plurality of grooves having intersecting sides that form a v-shape, the sides of the grooves forming first and second

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sets of substantially planar surfaces. Klinkum discloses that substituting a microprism sheet including a substrate and a plurality of grooves having intersecting sides that form a v-shape, the sides of the grooves forming first and second sets of substantially planar surfaces (12, 13, 14, Figure 3) for a microlens array as an image interlacing arrangement is well known in the art (see Figures 2 and 3 and column 4, line 57 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the image interlacing arrangement of Moseley et al. include a microprism sheet as Klinkum suggests in order to cut production costs.

Regarding claim 3, Moseley et al. in view of Klinkum discloses that the first and second image sources are separate regions of a single image display screen (41, Figure 10 and column 5, lines 22-26; Moseley et al.).

Regarding claim 4, Moseley et al. in view of Klinkum discloses that the single display screen is an LCD screen (column 5, lines 44-46; Moseley et al.).

Regarding claim 5, each of the pixels of the element 41 of Moseley et al. can be considered a separate display screen (41, Figure 10, Moseley et al.).

Regarding claim 6, Moseley et al. in view of Klinkum discloses that one of the image sources is an image source other than a display screen (63, Figure 15 and column 11, lines 22-25; Moseley et al.).

Regarding claim 8, Moseley et al. discloses a stereoscopic effects device comprising an image interlacing arrangement (see Figure 10) including at least one video display screen (41, Figure 10); a sheet including a substrate and a plurality of grooves (56, Figure 10) wherein the grooves are arranged to refract light from first and

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second image sources so that light from separate first and second images on the video display screen exits the sheet in parallel to form an interlaced image (see Figure 10 and column 5, lines 22-26); polarizers situated between the video display screen and the sheet (42, Figure 10); and polarized filters situated between the sheet and respective left and right eyes of a person (40, Figure 10). Moseley et al. does not disclose the sheet being a microprism sheet including a substrate and a plurality of grooves having intersecting sides that form a v-shape, the sides of the grooves forming first and second sets of substantially planar surfaces. Klinkum discloses that the use of microprism sheets including substrates and a plurality of grooves having intersecting sides that form a v-shape, the sides of the grooves forming first and second sets of substantially planar surfaces is well known in the art (12, 13, 14, Figure 3 and column 4, line 66 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the sheet of Moseley et al. be a microprism sheet as Klinkum suggests in order to cut production costs.

Regarding claim 12, Moseley et al. in view of Klinkum discloses that the video display is an LCD screen (column 5, lines 44-46; Moseley et al.).

The method of claim 19 is inherent in the apparatus described above.

Claims 7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moseley et al. in view of Klinkum as applied to claims 2-6, 8, 12, and 19 above, and further in view of Chikazawa (U.S. Patent 5,896,225).

Regarding claim 7, Moseley et al. in view of Klinkum discloses the claimed invention except for the first and second image sources displaying the left and right eye

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images captured by image capture devices situated at positions corresponding to positions of a viewers eyes. Chikazawa ('225) discloses that first and second image sources displaying left and right eye images captured by image capture devices situated at positions corresponding to positions of a viewer's eyes is well known in the art (1l, 1r, 4, Figure 1 and column 2, lines 22-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the first and second image sources of Moseley et al. in view of Klinkum display left and right eye images captured by image capture devices situated at positions corresponding to positions of a viewer's eyes as Chikazawa ('225) suggests in order to produce a stereoscopic image simply and inexpensively (column 1, lines 24-26; Chikazawa ('225)).

The method of claim 20 is inherent in the apparatus described above.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheiman (U.S. Patent 4,588,259) in view of Chikazawa ('225).

Regarding claim 8, Sheiman discloses a stereoscopic effects device comprising an image interlacing arrangement including at least one video screen (10, Figure 1); a microprism sheet including a substrate and a plurality of grooves having intersecting sides that form a v-shape (16, Figure 1), the sides of the grooves forming first and second sets of substantially planar surfaces (16, Figure 2), wherein the sides of the grooves are respectively arranged to refract light from first and second image sources (12, 14, Figures 1 and 2) so that the light from separate first and second images on the video display exits the microprism sheet to form an interlaced image (20, Figure 2); polarizers situated between the video display screen and the microprism sheet (15, 17,

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Figures 1 and 2); and polarized filters situated between the microprism sheet and respective left and right eyes of a person (27, 29, Figure 7). Sheiman does not disclose the grooves being arranged such that light from the first and second images exits the microprism sheet in parallel. Chikazawa ('225) discloses grooves of a microprism sheet that are arranged such that light from first and second images exits the microprism sheet in parallel (12, Figures 8 and 9 and column 3, lines 16-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the grooves of Sheiman be arranged such that light from the first and second images exits the microprism sheet in parallel as Chikazawa ('225) suggests in order to produce a simple and inexpensive arrangement which visualizes a stereoscopic image via a pixel-like registration and/or display (column 1, lines 24-26; Chikazawa ('225)).

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheiman in view of Chikazawa ('225) as applied to claim 8 above, and further in view of Powell (U.S. Patent 5,483,254).

Regarding claims 9 and 10, Sheiman in view of Chikazawa ('225) discloses the claimed invention as described above except for all of the components of the stereoscopic effects device (the microprism sheet, polarizers, and polarized filters) being situated in a common housing, wherein the housing is a housing of a handheld video game player. Powell discloses that having all components of a stereoscopic effects device be situated in common housing, wherein the housing is a housing of a video game player, is well known in the art (column 11, lines 62-63; the components of the stereoscopic display would have to be situated in a common housing or the hand-

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held computer game could not be hand-held). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have all of the components of the stereoscopic effects device of Sheiman in view of Chikazawa ('225) be situated in a common housing, wherein the housing is a housing of a video game player, as Powell suggests in order to allow a user to use the stereoscopic effects device whenever and wherever that user desires.

Regarding claim 11, the combination does not disclose that video display screen being an LCD screen. Powell discloses that the use of LCD screens is well known in the art (column 2, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the video display screen of Sheiman in view of Chikazawa ('225) be an LCD screen as Powell suggests in order to provide a very flat viewing screen and a light-weight portable display device (column 2, lines 43-46; Powell).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer E Winstedt whose telephone number is (703) 305-0577. The examiner can normally be reached on 7:30 - 17:00 Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Casandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JW
November 15, 2001

A handwritten signature in black ink, appearing to read 'Audrey Chang', with a large, sweeping initial 'A' and a stylized 'C'.

**Audrey Chang
Primary Examiner
Technology Center 2800**